FIVE-YEAR TRANSPORTATION PROGRAM 2005-2009

VOLUME VII

AN

OVERVIEW

OF

STATEWIDE ACCOMPLISHMENTS

2004

Final Draft

Statewide Accomplishments and Benefits

The Department's Fiscal Year 2004 Transportation Program focused on making government effective, efficient, and inclusive; providing a safe and secure transportation system; protecting natural resources, improving air quality, improving land use practices; and providing economic development opportunities.

MDOT expanded its partnering efforts with stakeholders and the general public in FY2004, becoming more effective and inclusive of citizens in the transportation process. New partnering efforts included holding a nationally recognized Transportation Summit, conducting workshops and stakeholder meetings to incorporate context sensitive design into transportation projects and holding public listening sessions on the Five Year Transportation Program.

Recognizing the importance of transportation in attracting jobs to Michigan, MDOT held a first-of-its kind Transportation Summit. Attendees were challenged to identify social, economic, and operational issues, and construct a shared vision all could agree on. The summit was a tremendous success and provided a forum for MDOT to listen and respond to Michigan transportation customers.

Stakeholder meetings have been held to incorporate context sensitive solutions into transportation projects to create better harmony between transportation needs and community values. This collaborative approach helps to ensure that transportation facilities fit their physical settings and preserve scenic, aesthetic, historic and environmental resources while maintaining safety and mobility. During the year numerous meetings were held to identify areas of concern, develop policies and procedures, establish guidelines, and develop educational programs. Participants included representatives of environmental groups, groups representing non-motorized interests, local governments, road builders, the business community, organized labor, transit agencies, users of public transportation and other transportation interest groups.

MDOT's commitment to continued public engagement was extended to conducting statewide listening sessions on the 2004 -2008 Five Year Program. These listening sessions provided citizens and stakeholders an additional opportunity to review the projects being proposed and comment on the document prior to formal adoption.

MDOT worked closely with state and federal environmental agencies to ensure that our projects are environmentally sound and require a minimum of disruption to existing ecosystems. The pre-mitigation program provides the basis for ongoing mitigation opportunities that are implemented as they become available. In 2004, approximately $2.5 million was authorized for the design of approximately 325 acres of wetland; in addition MDOT purchased over 300 wetland acres for use on future projects.

In 2004, MDOT drafted a Strategic Highway Safety Plan. This plan documents how the Department allocates its annual $58 million safety program to reduce crashes and fatalities and improve the safety and operational efficiency of the state trunkline system. The plan also highlights the cooperative efforts of all state departments in improving highway safety on all state roadways working through the Governor's Traffic Safety Advisory Commission. In 2004, the Commission adopted the goal of reducing fatalities on all Michigan roadways to 1.0 per 100 million vehicle miles traveled (current rate is roughly 1.3 per 100 million vehicle miles traveled).

IMDOT invested approximately $16 million in **Congestion Mitigation and Air Quality** (CMAQ) Program funding for state sponsored projects, to provide improved air quality in Michigan. The FY2004 CMAQ program has delivered the most diverse mix of projects in its history. The CMAQ funds were used in operational studies, intersection improvements, signal modernization, signal timing, left and right turn lanes, pedestrian and bicycle projects, transit service, bus replacements, rideshare and public outreach programs. CMAQ projects have made a significant contribution in keeping southeast and west Michigan in attainment of the ozone air quality standard, as well as helping to reduce the economic costs associated with congestion and traffic delays.

FY2004 Road and Bridge Program Accomplishments

Since 2002, the Michigan Department of Transportation has completed 94 percent of the road and bridge preservation projects promised in each edition of the Five Year Road & Bridge Program. We have improved approximately 1,430 miles of state roadway -- building over 40 miles of passing relief lanes, and upgrading 1045 bridges. In addition to the vital preservation work of rebuilding and repairing pavement and bridges in poor condition, MDOT has also focused on protecting taxpayer investments with a Capital Preventive Maintenance (CPM) program that has helped keep good roads and bridges in good condition -- saving money while extending the life of nearly 4,300 roadway miles. Since 2002, MDOT has invested more than $3.0 billion in our capital and maintenance road and bridge program. The Department's goal, as adopted by the State Transportation Commission, is to have 95% percent of freeways and 85% of non-freeways under MDOT's jurisdiction in good condition by 2007.

The Michigan Department of Transportation (MDOT) FY2004 Road and Bridge Program investments totaled approximately $1.28 billion, including pre-construction phases (project scoping, environmental clearance, design, right-of-way acquisition), and construction projects. This program investment supported over 47,000 jobs throughout Michigan.

MDOT delivered on its commitments to the public without the benefit of a reauthorized federal transportation bill that would determine how much federal funding Michigan receives for roads, bridges, and transit. The federal transportation authorizing bill, Transportation Equity Act for the 21st Century (TEA-21) expired on September 30, 2003. Since then, federal funds have been allocated at 2003 levels under a series of short-term extensions and much uncertainty. To date, a new bill has not been approved.

Despite the uncertainty brought about by short-term extensions and the subsequent difficulty of long-term planning, Team MDOT has been good stewards of the funding and financial strategies available to us. We have successfully delivered a balanced program that maintains and preserves our transportation infrastructure while supporting Michigan's economy and quality of life.

The FY2004 Highway Program maintained the 9,700 mile state trunkline system by investing $234 million in routine maintenance activities such as pothole filling, snow plowing, sweeping, and grass cutting. MDOT continued the second year of the Preserve First initiative in FY2004, focusing on the preservation of Michigan's existing transportation infrastructure. This initiative accounted for roughly seven percent of FY2004 program investments.

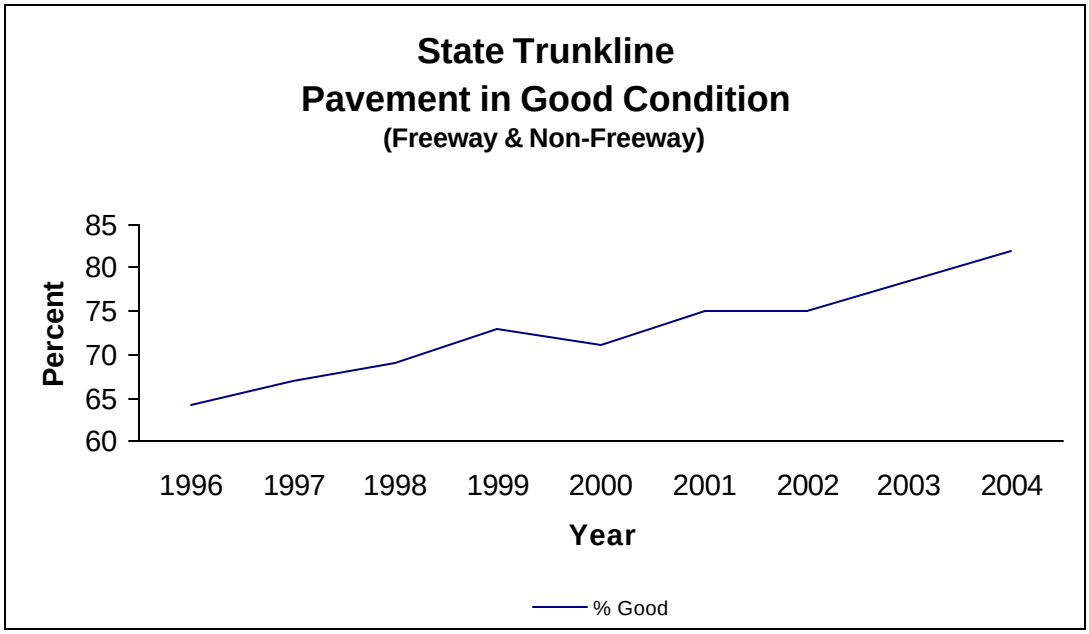
As part of the 2004 bridge program, we worked on a record 419 bridges, of which 195 bridges were preventative maintenance. Due to the long term benefits to the bridge network, we are placing more emphasis on preventative maintenance. We are timing bridge work to coincide with road preservation work, in an effort to reduce the number of times major bridge work is done in a given area.

By implementing our strategy, we have greatly slowed the deterioration rate of our bridges. Compared to 1999, today, we have a 60 percent decrease in number of bridges entering the poor category each year. In FY 2004 we awarded six of the seven Capacity Improvement and New Road projects that were announced in September, 2003. Total investment in the Capacity Improvement and New Road Program for FY 2004 was approximately $185 million.

The Department was successful in delivering 94 percent of the road and bridge preservation program as announced in September, 2003. This translated into providing Michigan travelers with over 500 miles of improved road and over 400 repaired bridges. MDOT managed good and fair roads by extending approximately 1,700 miles of pavement life through the Capital Preventive Maintenance (CPM) Program. The State Transportation Commission approved 462 road and bridge projects totaling over $700 million for fiscal year 2004.

Pavement Condition

Because of the strategies we have employed for fixing our system, MDOT continues to make progress towards meeting the 2007 pavement condition goal that was established by the State Transportation Commission in 1998 of having roughly 90 percent of the state trunkline roads in "good" condition by 2007. The pavement condition of the department's roadways has been improved from 64 percent "good" in 1996 to 82 percent "good" in 2004, as reflected in the following graph**.**



We continue to make good progress toward achieving our pavement condition goals.

Since 1996 we have nearly 5,000 more lane miles in good condition on our trunkline system. MDOT implemented the Preserve First initiative in 2003, increasing the emphasis on preserving our existing transportation system.

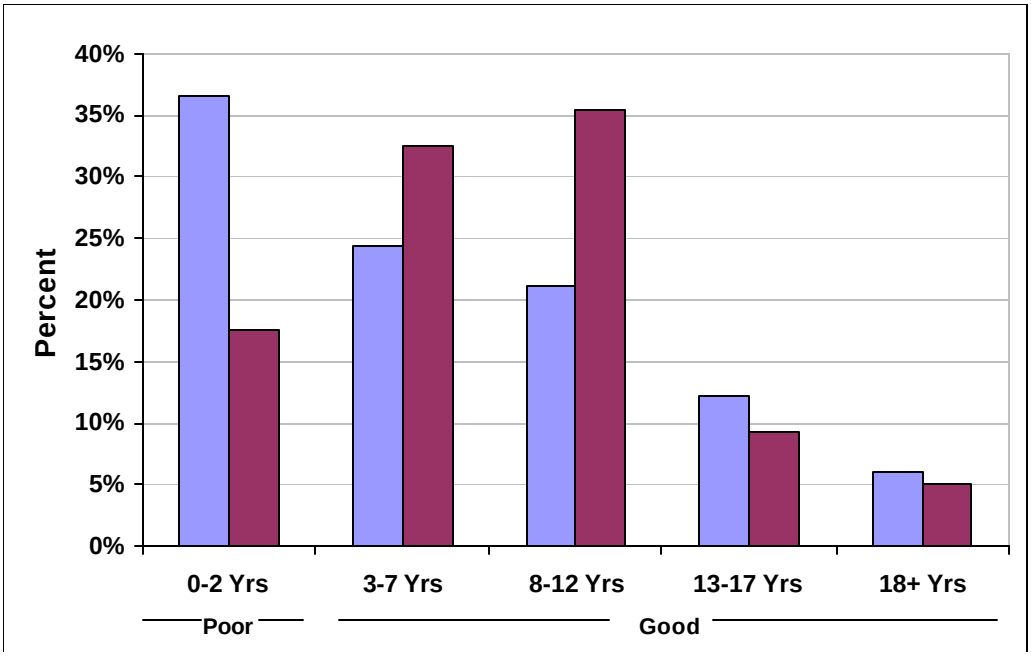
With the Preserve First funding and the focus on high volume routes, since 2002, we have been able to make better progress. The preceding graph shows that Preserve First is clearly helping to ensure continued progress in reaching the 2007 pavement condition goal.

In fiscal year 2004, MDOT began implementation of a four-year Non-Freeway Resurfacing Program (NFRP). This program will accelerate progress toward achieving the pavement preservation goal by focusing approximately $54 million on low volume, non-freeway roadways in poor condition from 2005 to 2007.

MDOT completed a process improvement designed to improve the pavement data collection and analysis process. The process improvement created a database environment and automated remaining service life estimation. The result of this effort has improved data consistency and efficiency, as well as facilitate faster processing time and easier implementation of system adjustments.

Remaining Service Life (RSL) is a measure of current pavement condition and refers to the number of years a pavement has remaining before major repair or reconstruction is needed. RSL is essentially the number of years before it is no longer cost effective to maintain the pavement, and becomes more cost effective to rehabilitate or reconstruct the pavement. RSL is a good measure for use in the forecasting tools, because it takes into consideration not only the current condition state, but also the deterioration rate for specific segments of the system. It is calculated by monitoring and measuring pavement deterioration using MDOT's Pavement Management System (PMS).

State Trunkline Roads
Remaining Service Life Distribution
(1996 vs. 2004)



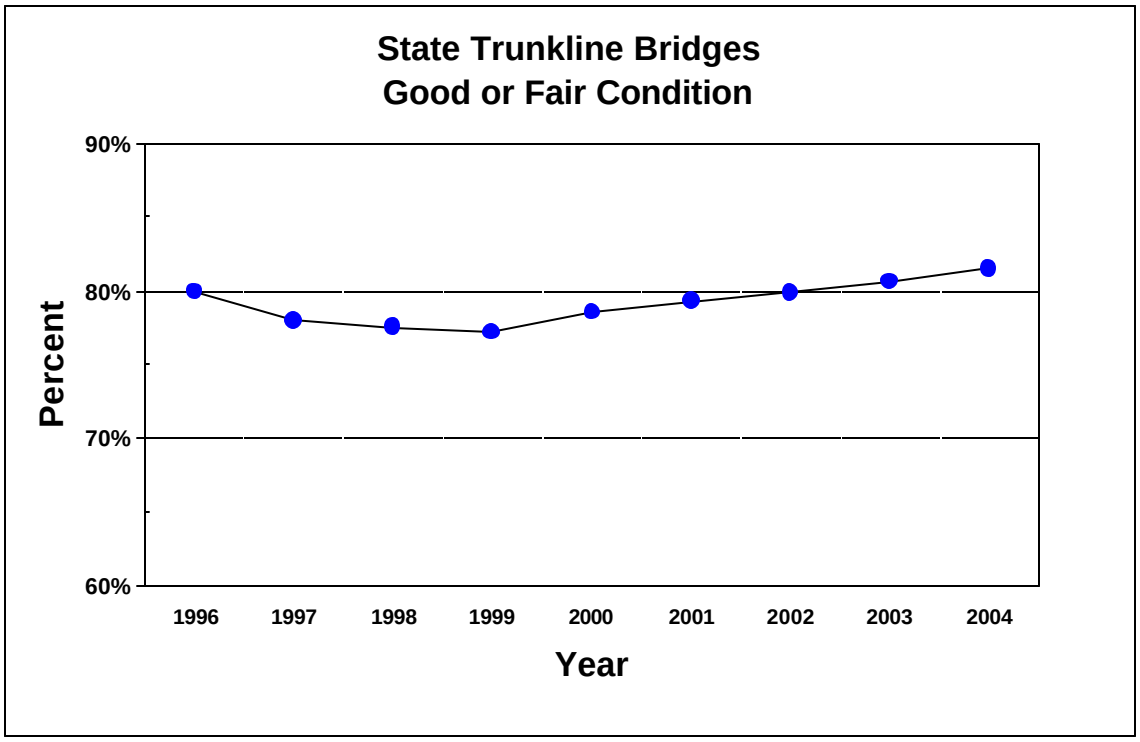
Our system health is improving. Between 1996 and 2004, MDOT has reduced the miles of poor pavement by over 18 percent. In this same timeframe, the average remaining pavement life of the department's trunkline system has increased by approximately 30 percent, from 6.8 to 8.8 years of average remaining network life. The bar chart above reflects the change in distribution of pavement condition for MDOT's 27,000 lane-mile system since 1996.

Bridge Condition

We have just completed the fifth year of the Strategic Investment Plan for Trunkline Bridges. In this time, **MDOT has met the non-freeway bridge goal of 85% non-freeway bridges being in good or fair condition**.

This goal was achieved five years early and we will be able to sustain it with our balanced use of preventive maintenance, rehabilitation and replacement projects. MDOT is continuing to work towards our freeway bridge goal of 95% freeway bridges being in good or fair condition.

There are 285 bridges that fall into either the serious or critical bridge category included in the 2005 – 2009 Call for Projects. By taking care of our serious and critical bridges, we are quickly moving from having a reactionary bridge program to a proactive bridge program. The following graph shows the percent of bridges on both freeway and non-freeway systems in good or fair condition.



FY2004 Safety Program

MDOT's Comprehensive Safety Program focused on improving traffic control devices and driver information systems in an effort to improve driver safety. As part of MDOT's FY 2004 safety program, $58 million was committed to the design, construction, and placement of signs, pavement markings, guardrail, traffic signals, and other safety improvement projects.

Accomplishments in FY2004 included adding 166 million feet of pavement markings statewide and replacing special markings in approximately 42 of Michigan's counties. MDOT also upgraded signs on 560 miles of non-freeway facilities and 85 miles of freeway. The Department constructed 114 miles of shoulder rumble strips, replaced or upgraded deteriorated, non-standard guardrail along 224 miles of roadway, installed 12 new traffic signals and upgraded/modernized 235 traffic signals and beacons, 25 school devices, and re-timed 500 signals in FY2004. Several safety improvement projects were constructed in response to analysis of traffic crashes.

As a result of the FY2004 Highway Safety Program, MDOT estimates the number of crash reductions at 92 minor injury and property damage crashes and 22 severe injuries and fatalities. In recent years, MDOT's comprehensive Safety program has implemented many efforts to improve driver safety. These efforts include:

A. Keeping Vehicles on the Roadway

Running off the roadway is one of the most severe types of crashes. Forty-eight percent of all fatal crashes involve a vehicle departing the roadway.

In order to reduce injuries and fatalities due to vehicles leaving the road, several efforts have been targeted in the last five years and will continue in 2005.

1. Improved Driver Guidance

A comprehensive program has been implemented to improve driver guidance and visibility during hours of darkness through improved signing and pavement markings.

We have been working with private industry to produce pavement markings with longer life expectancy and improved reflectivity, particularly during wet, inclement night conditions.

Also of benefit to motorists is the use of reflective backgrounds and legends on all new signs. To assure visibility at night, signs are replaced based on age. In the past five years, MDOT has reduced its replacement cycle from 19 years to approximately 15 years as a result of implementing new strategies. As part of this program MDOT has revised its standard for yellow warning signs to fluorescent yellow. The result will be a 24 hour warning sign system for various drivers, vehicle types and lighting conditions.

FY2004 accomplishments include adding 166 million feet of pavement markings statewide and replacing special markings in 44 of Michigan's counties.
In this program the width of all edge lines and interchange gore markings have been increased for the benefit of the elder driver and improved driver guidance.
High quality pavement markings are also being used by MDOT on its long term pavement fixes. The use of such a system on these pavements will limit the exposure to our contractors and motorists and provide a multi-year marking system. MDOT also upgraded signs on 560 miles of non-freeway facilities and 85 miles of the freeway system.

2. Warning for Motorists Who Leave the Roadway

Department analysis has indicated "drift-off-the-roadway" crashes on Michigan freeways are a concern. The analysis revealed 17 percent of the "drift-off-the-roadway" crashes on Michigan's freeways that occurred on roadways without rumble strips, resulted in severe injury or death to at least one crash victim. For comparison, only three percent of all Michigan freeway crashes result in severe injury or death. These types of crashes can be minimized by rumble strip installation in the shoulders.

Michigan's experience shows a 40 percent reduction in "drift-off-the-roadway" crashes with rumble strips in place. In response to the significant crash decrease, MDOT adopted milled-in rumble strips as our standard. Since 2000, ten stand-alone rumble strip projects were constructed on 786 miles of freeway. These projects prevent an estimated 177 crashes annually, including four fatal and 20 severe crashes.

In 2004, rumble strips were constructed along 114 miles of freeways in the North, Bay, and University Regions in the department's effort to place rumble strips on all freeways. The remaining freeways will be completed as part of the five-year program.

3. Minimizing the Consequences of Leaving the Road

In addition to strategies to keep vehicles from leaving the road, several efforts have been undertaken to minimize the consequences if a vehicle does leave the road.

The Guardrail Improvement Program has replaced or upgraded deteriorated, non-standard guardrail along 224 miles of roadway in 2004. Crash history has indicated more fatalities and serious injuries occur when impacting the ends of barrier systems. MDOT has placed more than 5,000 guardrail endings during the past five years to mitigate this type of impact.

B. Safety Improvement Road Construction Projects

Safety improvement projects are constructed in response to traffic crash analysis. These projects typically involve improving safety at high crash intersections.

During 2004, 29 safety improvement projects were implemented in response to traffic crashes. Of these projects, eight were done as part of the road and bridge programs. Additionally, $1.2 million was spent on minor safety improvements on the trunkline system including minor intersection improvements, culvert extensions, right and left turn-lanes, passing lanes, and minor guardrail improvements.

C. Operations

In 2004 the department installed 12 new and upgraded 235 traffic signals and beacons, 25 speed limit signs and retimed 500 signals. Through the use of CMAQ funding 625 additional traffic signals in Oakland County (both trunkline and non-trunkline) and 150 in Wayne/Macomb Counties (trunkline only) were retimed. Roadways included in this Southeast Michigan effort are the entire length of M-59 in Macomb County, and Ford, Plymouth, Jefferson (Downtown), and Woodward in Wayne County. Studies have shown properly timed signal systems improve corridor travel time, reduce individual intersection delay by 37 percent, and result in a nine percent fuel savings.

D. Elder Driver

MDOT recognizes the influence of the elder driver and their impact on the safety and traffic operations on Michigan's roadways. To gain an increased understanding of what can be done for this driving population MDOT, as part of the 2004 North American Conference on Elderly Mobility, sponsored a demonstration roadway in downtown Detroit of various traffic control devices.

The new and revised devices which have shown to benefit elder drivers included Clearview font for overhead guide signs, LED traffic signals, fluorescent yellow warning signs, wide pavement markings, and various improved traffic signal displays.

The department will use the results of the demonstration roadway to modify standards and practices to benefit not only the elder driver but all drivers in Michigan.

E. Work Zone Safety

MDOT has identified locations across the state where increased law enforcement in work zones may help keep motorists and workers safer during our construction season. The department provides funding to cover overtime costs of state and local police officers patrolling work zones.

These added patrols along with the increased fines and penalties for traffic violations in work zones help protect not only the highway workers, but also the drivers within these work zones. The department also implemented required signing changes for work zones in response to new work zone legislation. The new legislation now clearly defines what a work zone is and requires the placement of speed limit signs within the zone for long term projects.

FY2004 Transportation Enhancement Program

Ten percent of the funding distributed to MDOT from the federal Surface Transportation Program is earmarked in federal law for "Transportation Enhancement Activity" (TE). The federal program provides funding for projects in 12 statutory categories of activity (e. g., pedestrian/bicyclist facilities, roadway beautification and streetscaping, preservation of historic transportation facilities) aimed toward enhancing the "fit" of Michigan's highways, streets and roadways into the communities they serve.

During FY2004, MDOT awarded $20,675,226 in TE funding for 48 projects in communities all across the state. The 48 projects will streetscape 13.7 miles of roadway, beautify 9 bridges, create over 42 miles of pedestrian/bicyclist facilities, improve two roadside parks, and preserve a historic brick street, a railroad depot, and the façade of a historic auto manufacturing plant.

Of the 48 projects, thirteen will directly contribute to neighborhoods awarded one of the 20 Cool Cities Catalyst Grants Governor Granholm announced in June, 2004. The almost $20.8 million in federal funding was matched by $7.8 million from other sources resulting in a total investment of $28 million in enhancements to the state's surface transportation system.

FY2004 Transportation Economic Development Program

During FY2004, the Transportation Economic Development Fund (TEDF) Programs provided nearly $70 million to build commercial routes, relieve congestion, bring forest products to market, and generate private investment and job creation. There are five categories of TEDF funding, a brief description of each category follows.

- **Category A (Target Industries):** Granted $18.5 million toward 12 road projects costing over $38.4 million. These projects supported private investment of just under $3.7 billion and the creation or retention of 8,082 jobs. As a result, an average of $2,075 of private money will be invested for every $1 of TEDF money.

- **Category C (Urban Congestion Relief):** Distributed $21.1 million in state and federal dollars to 5 urban counties for congestion relief projects.

- **Category D (Rural All-season Roads):** Distributed $22.5 million to 78 rural counties to construct or reconstruct secondary commercial routes.

- **Category E (Forest Roads):** Distributed $5 million to 46 eligible counties for projects that aid in the safe and efficient collection and transport of forest raw materials.

- **Category F (All Season Roads in Cities in Rural Counties):** Distributed $2.5 million to construct or reconstruct secondary commercial routes in cities in rural counties.

FY2004 Congestion Mitigation and Air Quality Program

The Congestion Mitigation and Air Quality (CMAQ) program invested more than $149 million in transportation projects in the attainment/maintenance areas of Metropolitan Detroit, Grand Rapids and Muskegon since 2002. Major accomplishments of the CMAQ program during 2004 include:

- Continued funding for a massive Intelligent Transportation Systems (ITS) effort which integrates information technology, safety, traffic flow improvements, equipment modernization, and air quality improvements. Michigan has one of the largest and most advanced ITS system in the nation.

- The operations and maintenance services of the Michigan Intelligent Transportation System (MITS) Center in Southeast Michigan will continue to be funded under special provisions in the federal law with CMAQ funds. State and local partnering with snow removal operations for winter months, as well as Oakland County Traffic Operations Center activities and capital improvements are also funded with CMAQ money, as well as improved efficiency for on road travel through the ITS systems.

- The expansion and continuation of the operating assistance for the highly successful Freeway Courtesy Patrol program, currently operating in southeast Michigan, continued in 2004 under special funding transfer provisions. This program assists stranded motorists by removing vehicles from travel lanes, making minor repairs to disabled vehicles, arranging for tows, transporting drivers and passengers, and assisting with local emergency phone calls.

- Funding for the design of innovative rideshare efforts, especially in Ann Arbor, where rideshare web-based software applications were implemented in 2004. Carpool parking lot construction and transit coordination are also more prominent aspects of the program since 2004. New emphasis on regional strategy rideshare and carpool efforts promotes administrative cost savings, and allows more funding for actual marketing and public awareness activities. These efforts provide a means to maximize the use of existing roadway space.

They assist in coping with increased traffic congestion and promote voluntary alternatives to motorists that help alleviate problems which degrade the air quality.

FY2004 and beyond will demonstrate an unprecedented use of CMAQ funding for pedestrian and non-motorized mobility efforts within Ozone Action and Regional Air Quality programs.

With an initial CMAQ call for projects completed in 2004, the variety of projects funded for FY2005 represents the most diverse group of projects funded since the inception of the program in 1991. With the new 8-hour Ozone Standard in place, Michigan has 25 counties involved in the use of CMAQ funded projects.

More than $10 million spent on transit activities during 2004 with a 100% project letting rate for the third consecutive year.

FY2004 Intelligent Transportation Systems (ITS) Program

Intelligent Transportation Systems (ITS**)** is the use of technology to improve traffic flow through the active management of the road system. ITS has been used by MDOT for decades. We have been using Closed Circuit TV (CCTV) cameras, traffic sensors and dynamic message signs (DMS) since the mid 1960s, making Michigan the owner of one of the largest ITS infrastructures in the nation.

In Detroit, this complex state-of-the-art telecommunications system is monitored by a traffic management center operated jointly with the Michigan State Police. Similarly, Grand Rapids has a telecommunications system and a control room jointly operated with the city police department. Communications infrastructure in both Grand Rapids and the Detroit area is being installed during road construction activities, resulting in a significant cost savings.

In FY2004, MDOT continued to fund the operations and maintenance of the Michigan Intelligent Transportation System (MITS) Center in Detroit.

The MITS operations include: The MDOT Freeway Courtesy Patrol Program which celebrated its 10th anniversary during FY2004. This program has become very popular throughout the southeast Michigan region serving more than 2000 motorists monthly, and is currently operating with 34 vehicles, including 27 vans and five wreckers. Other operation activity includes: ongoing equipment modernization and replacement of components of the existing system; expansion of current system to serve Detroit Metro Airport; continued control room operation; and planning for future enhancements to replace aging hardware and software.

A summary of ITS accomplishments for FY2004 include the following:

- MDOT developed a statewide ITS Strategic Plan to provide a consistent framework to coordinate ITS planning and deployment efforts statewide.

- Initiated a planning study for the development of a 511 traveler information system.

- Coordinated with the major automakers in Michigan, as well as numerous suppliers to lay out a conceptual plan to test the integration of the roadway with vehicles.

- Worked with partners in Southeast and Western Michigan to share traffic information (data and video) to permit a more effective use of the existing roadway infrastructure.

- In coordination with the Michigan State Police (MSP), MDOT continued posting AMBER Alerts for missing children on the changeable message signs (CMS) along the major freeways.

- Improved coordination with local media through instant messaging and installed a new MSP computer aided dispatch terminal for better coordination between MDOT and MSP.

- Established a number of standing committees with major special events providers in Southeast Michigan to more effectively use the ITS infrastructure and relationships to aid in the management of traffic for the many special events that occur in and around Detroit, including the 2005 MLB All Star Game and the 2006 NFL Superbowl.

- The MITS Center continued to improve the real-time traffic information website at www.mi.gov/metrodetroittraffic which provides traffic conditions of the major trunklines in the metropolitan Detroit area. Operational features and accomplishments for the MITS Center during FY2004 include:

- **Incident management**
    - Initiated regular multi-agency after action reviews for improved incident management;
    - Organized subcommittee to focus on program action items to improve freeway operations;
    - Updated blueprint for action for proposed incident management projects.

- **Work zone traffic management**
    - Implement DMS message Quality Control reviews and procedures;
    - Developed and implemented control room staff training for construction season kickoff.
    - Continued outreach to construction projects.

- **Special event traffic management**:
    - Conducted after action reviews of high traffic impact events including Secretary Colin Powell visit, Thanksgiving Day parade and Lions game, North American International Auto Show, Pistons championship and parade, Fireworks, and Dream Cruise;
    - Incorporated traffic control devices into closure activities;

An operations manual was developed in 2004, and includes instructions on preparing reports for special events.

FY2004 Roadside and Aesthetics Program

The Roadside Development Program completed and participated in numerous projects during FY2004. The primary function of the program is to implement the Rest Area major capital outlay program for MDOT. This includes replacement or major upgrades of the Rest Area facilities. Listed below are the accomplishments and a brief description of the capital outlay projects for FY2004. This work commits the entire $9 million roadside and aesthetics budget scheduled for 2004.

Chelsea Rest Area: Preliminary Engineering funding has been established for the development of a new rest area which will replace the Ann Arbor Rest Area that was eliminated due to the Baker Road interchange project. The site of the new rest area is located near Chelsea and the acquisition of right-of-way was completed in FY2004. Design work is proceeding and scheduled for letting in the summer of 2005.

Howell Rest Area: This project was designed and placed under contract (let) in FY2004. Project is currently under construction and scheduled to open in the spring of 2005.

Nine Mile Hill Rest Area: Project was designed and let during the summer of 2004 and is currently under construction.

Fenton Rest Area: Project was designed and let during the summer of 2004 and is currently under construction.

Cadillac Rest Area: Construction was complete in May and open to the public prior to Memorial Day.

Muskegon Rest Area: Construction was complete in May and open to the public in early June.

Fruitport Rest Area: Construction was complete in May and open to the public in May.

FY2004 Preliminary Engineering work has begun for projects located in the following areas: Belleville, Turkeyville, Manistee Roadside Park and the Rockford Rest Area. These projects are scheduled to be completed in 2005.

In addition, approximately $1.1 million dollars of major improvements to rest areas and roadside parks statewide was completed during FY2004 and funded through the Maintenance Support Area program.

FY2004 Carpool Parking Lot Program

The Carpool Parking Lot program offers public parking sites for carpooling and vanpooling activities. Carpooling and vanpooling benefits communities by reducing gasoline consumption and harmful automobile emissions. In 2004, Michigan's 211 carpool parking lots served as parking sites for an average of more than 2,500 commuters each weekday. As a result, Michigan carpool parking lots saved an estimated 2.5 million gallons of gasoline in 2004, which translates into approximately $3.5 million in monetary savings for users.

To improve this important transportation asset, MDOT Regions and Transportation Service Centers utilized $817,000 to perform fourteen needed carpool parking lot projects including the construction of five new lots; improvements of seven existing lots; and the relocation of two existing lots to alternative sites.

Context Sensitive Solutions

Context sensitive solutions (CSS) is defined as a collaborative, interdisciplinary approach involving stakeholders for the development of a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, cultural, and environmental resources, while maintaining safety and mobility.

The Governor's Executive Directive 2003-25 requires that MDOT use CSS for transportation projects whenever feasible. In response to the directive, MDOT plans to continue stakeholder engagement activities as it finalizes a policy statement and pursues further implementation plans. A successful CSS program will require mutual commitment on the part of both transportation agencies and stakeholders to plan, develop, construct, operate, and maintain infrastructure in accordance with CSS principles.
In addition, the department will create educational programs for staff and consultants that will develop the attitudes and skills necessary to implement context sensitive solutions for transportation projects.

Accomplishments for 2004:

- Participated in training opportunities including the National Highway Institute class on CSS, a National Teleconference, and a national software user conference on project visualization techniques
- Identified as many stakeholders as possible and included diverse groups from the environmental community, planning associations, local governments, the transportation industry , and other state agencies
- Conducted a survey of stakeholders regarding CSS
- Worked closely with stakeholders to build partnerships and a common understanding. Held stakeholder workshops on June 15 and December 14 that identified /prioritized input for policy, procedure, and guidelines
- Completed a draft CSS Policy

Asset Management

During the past year, the department has participated as a member of the Transportation Asset Management Council. The Council completed the second year of the state's comprehensive assessment of the condition of the state's federal-aid highways during 2004. With participation from MDOT, County Road Commissions, Cities and our local planning partners, 43,000 miles of federal-aid eligible roads have been reviewed and rated using a uniform process throughout the state's 83 counties.

This historic undertaking has been successful because of the enormous dedication of our state and local transportation providers and agencies working together to achieve a common goal.

The asset management concept provides a more holistic and systematic view of our road system, rather than analyzing individual parts of roads under state or local jurisdiction. By examining how the road functions, MDOT will be viewing the system in the same way as the driving public, allowing us to become more customer-oriented. The Council has established its own web site at http://www.michigan.gov/mdot/amc . The results of this major data collection effort can be viewed at this site as well as the minutes of the Council meetings; the Council's goal statement and 2004-2006 work plan, and their annual report to the Legislature and State Transportation Commission.

Access Management

During FY2004, MDOT Regions reported the completion of seven corridor access management plans along the state trunkline system. There is a growing interest among many local communities for implementing local access management programs. The new MDOT Access Management Guidebook provides guidance on driveway spacing, location and design based on engineering principles which local governments can adopt as part of corridor overlay plans and ordinances.

The MDOT also completed several training workshops during FY2004 to promote continued use of the guidebook and the benefits of access management to communities that adopt local access management plans and ordinances. Access management has also been identified as a key component in the departments approach to Context Sensitive Design. Local units of government that wish to establish access management programs in their community should contact the MDOT Transportation Service Center in their area.

Environmental Justice

Applying Environmental Justice (EJ) principles across our programs ensures that the impacts of projects are not imposed inequitably on certain groups of citizens and that the transportation services provided are done so in an equitable manner to all the citizens of Michigan. This includes our commitment to ensure that groups which traditionally do not have a voice in some of these major decisions are given the opportunity to provide input prior to decisions being made.

As part of this process, MDOT considers demographic and other factors to assist in identifying and addressing disproportionately high and adverse human health and environmental effects, including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations.

There are three fundamental principles at the core of environmental justice.

- To avoid, minimize or mitigate disproportionately high and adverse human health and environmental effect, including social and economic effect on minority populations and low-income populations;

- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and

- To prevent the denial, reduction or significant delay in the receipt of benefits by minority and low-income populations.

Through careful planning and proactive involvement, MDOT guarantees the highest quality transportation services to all of Michigan's citizens, regardless of race or income.

MDOT recently developed a draft document entitled *Environmental Justice Interim Draft Guidance for Michigan Transportation Plans, Programs and Activities*. The document addresses the issue of EJ as it relates to transportation and transportation planning.

FY 2004 AVIATION, BUS, MARINE/PORT AND RAIL PROGRAM ACCOMPLISHMENTS

Aviation

Carrier Recruitment and Retention – Long term efforts to secure jet service at Muskegon County Airport became a reality on June 10, 2004 with the first scheduled jet flight in over 25 years. The Air Service Program has assisted Muskegon County with $50,000 to secure a federal grant to help small communities increase or maintain air service. Total federal funds are $500,000, with a $50,000 local match from Muskegon County.

Airport Awareness Category – Eleven (11) Airport Awareness grants were issued during FY2004 which totaled $230,000. Funds were used to increase awareness within the local community of the available scheduled air service and airport facilities. Examples of approved projects include: airport brochures at Ironwood and Pellston, flight schedules at Muskegon, dasher board advertising at ice arenas in Marquette and Sault Ste. Marie.

Capital Improvement & Equipment Category – During FY2004, a Call for Projects was held and eight (8) grants were issued. These totaled $19,857.

Approved projects included: aircraft de-icing unit, upgrades to security systems, increased passenger holding and boarding areas to accommodate increased security, and acquisition of communication equipment. These grants require local participation of 10%.

2004 Passenger Survey – Scheduled airline passengers were surveyed at the 16 air carrier airports during June and July of 2004. All airports were included except Detroit Metro. The passenger responses will be compared to 1998, 2000 and 2002 baseline data. The survey monitored changes in levels of customer satisfaction, trip destinations or purposes and passenger use of local airport(s). This year's survey included questions from the Michigan Household Travel Project being conducted by MDOT. New questions included: other Michigan communities visited, and other modes of transportation used. Results are now being analyzed.

Airport Improvement Program
With the completion of the FY2004 All Weather Airport Access program installations, 60.4 percent of eligible airports in Michigan will have achieved all-weather accessibility.

Pilot Safety Seminars are conducted throughout the state to provide recurrent training for pilots on issues designed to help pilots improve their skills, enhance their knowledge, and prevent accidents. In 2004, we conducted 42 seminars with an estimated attendance of 3,000 people.

An annual Aviation/Aerospace Teacher Workshop was designed to help teachers incorporate aviation and aerospace concept into their classrooms. This year's workshop (our 11th annual) on May 22, 2004 was sold-out with 200 teachers, plus about 40 staff and presenters. The keynote speaker was former NASA Chief Scientist, Dr. Kathryn Clark.

Michigan Aviation, our quarterly safety publication, features articles on myriad safety issues as well as Aeronautics Commission news. It is sent to each of Michigan's 18,000 pilots.

MDOT conducts annual inspections at over 300 public-use airports and heliports, and licenses and/or registers all airports, flight schools (80), aircraft (7,000), and aircraft dealers (225).

During FY 2004 MDOT contracted for 55 airport improvement projects, all having significant safety benefits. In addition to the safety benefit, the projects are developed to either preserve the existing infrastructure, or expand the runway capacity.

Southwest Michigan Regional Airport - Benton Harbor Continuation of property acquisition and resident relocations for new 6,000 ft runway construction and standard runway safety areas. MDOT worked with the airport and property owners and renters to make this more than just relocations. There was an extra effort made to help displaced renters become homeowners.

Cherry Capital Airport - Traverse City Construction of the new terminal building will be completed by October 2004. This new terminal will change the look of the airport, where people access the airport and how the community and airport interact.

Airport Development and Licensing Programs

Capital Grants – In FY2004, more than 253 grants to Michigan airports were processed. This includes more than $12 million in state funds and $105 million in federal funds. During the same period of time, MDOT contracted for 55 new airport construction projects to enhance safety or to expand the runway capacity. Seventy-eight percent of these projects can be attributed to preservation and the remaining twenty-two percent were capacity enhancement. Major airport projects for the past year include the following:

- New terminal building at Traverse City (Cherry Capital Airport).

- Construction of Washington Avenue Tunnel beneath runway at Tulip City Airport in Holland.

- Runway projects at Fremont (Fremont Municipal), Linden (Price's), East Tawas (Iosco County), South Haven (South Haven Area Regional), Sturgis (Kirsch Municipal), Clare (Clare Municipal), Bad Axe (Huron County Memorial) and Grosse Isle (Gross Isle Municipal) airports.

- Land acquisition at Adrian (Lenawee County), and Benton Harbor (Southwest Michigan Regional). Also, noise mitigation at Detroit (Detroit Metro – Wayne County) and Pontiac (Oakland County International).

- Six (6) All Weather Airport Access Systems (AWOS) were installed during 2004. Because of these improvements, over 60% of Michigan airports have all-weather accessibility. These systems were installed at the following sites: Caro (Tuscola Area Airport), Frankfort (Dow Memorial / Frankfort Airport), Owosso (Owosso Community Airport), Rogers City (Presque Isle County / Rogers City Airport), South Haven (South Haven Area Regional Airport) and Troy (Oakland / Troy Airport).

Community Benefit Assessment Program (CBA) – This new program was launched in February 2004 and provides an overview of the economic impact of an airport on the surrounding county.

The economic assessment is provided in three categories: Jobs, Income and Output. To date, there have been presentations of the CBA in fifteen counties around the state and more information is being added to the database each month.

Vision 100 – MDOT Aeronautics worked diligently to bring about the passage of the FAA reauthorization bill, VISION 100. The bill provides an increase of $400 million dollars, with Michigan receiving a larger percentage of federal funds than under previous FAA authorizations.

Other FY2004 Aviation Accomplishments included:

- Inspection of 150-public-use airports, 5 public-use heliports, 20 hospital heliports and 47 flight schools.
- Review of 1,258 Tall Structure permit applications
- Approval of compatible land use zoning approach plans for 3 Michigan airports by the Michigan Aeronautics Commission.
- The State Transportation Commission approved 53 aeronautics projects totaling $28 million for fiscal year 2004.

Bus, Marine and Port, and Rail Programs

Transit

During FY 2004 MDOT:

- Issued $161.6 million in Comprehensive Transportation Fund (CTF) monies for local bus operating assistance, $3.9 million in CTF specialized services payments, and $2.2 million in CTF to 49 agencies for transportation to work service
- Executed over $28 million in CTF capital match contracts to transit agencies. This $27 million in CTF leveraged approximately $112 million in Federal funds. These funds are issued directly to local transit agencies for vehicles and facilities.
- Secured CTF and federal funds to transit agencies and private non-profit agencies for purchase of up to 149 vehicles
- Over $2.5 Million in CTF funds were obligated to match federal Jobs and Reverse Commute (JARC) grants to Grand Rapids, Flint and Detroit.

Interurban Transit Partnership – Grand Rapids The Rapid opened its new $22.7 million transit terminal "Rapid Central Station." The intermodal facility serves as a transfer center for all of ITP/The Rapid's line-haul bus routes and will be shared with Greyhound. Rapid Central Station features community rooms, ticket sales offices, restrooms, a police substation, security center, concessions and seating areas.

Features such as a "green roof" of living plant material and construction materials of recycled products make the facility the first environmentally certified transit center in the state.

Detroit Area Regional Transportation Authority - The Department has worked closely with DARTA staff and Board members to secure $1.0 million in congressionally earmarked federal funds (FTA and FHWA grants) and state match/leverage. These funds will be used to implement agreements between local agencies, hire a CEO, and develop, coordinate and evaluate a comprehensive service plan for southeast Michigan.

State Bus Contracts - Using the power of larger quantity purchasing, MDOT negotiates contracts with manufacturers to build buses for the smaller rural transit agencies. A new medium duty bus contract for $8.7 million was awarded in March 2004 and a new small bus (cutaway) contract should be awarded September 2004.

Intercity Bus and Passenger Rail

Intercity Bus - The Department used state and federal funds to provided operating assistant for intercity bus service in northern Lower Michigan and the Upper Peninsula. Without this operating assistance there would be no intercity bus service to these areas. Additionally, the state has purchased and will lease eight new motorcoaches to Indian Trails and Greyhound. These motorcoaches are purchased and leased to the service provider to ensure quality and accessible equipment for Michigan bus passengers.

To help ensure the safety of motorcoaches and limousines operating in Michigan, MDOT conducts inspections and requires safety certifications on these vehicles. This year MDOT conducted annual safety inspections or safety certifications for nearly 6,000 private motor coaches and limousines.

The Passenger Transportation Division (PTD) has formed and facilitated an informal workgroup of state agency staff to continue discussions began at the Federal Transit Administration 2004 National Leadership Forum. Governor Granholm appointed three state agency officials to attend the forum which was held in February. At the forum, teams were encouraged to develop state level transportation coordination councils and coordination projects.

PTD also supported the transit agencies in Midland Bay and Saginaw Counties and the Midland Center for Independent Living as they plan for improved cross-county transportation.

The 29th annual Small Bus Roadeo was hosted by MDOT and the Michigan Public Transportation Association this year. Fifty-three drivers from twenty-three transit agencies participated. MDOT also hosted the 27th annual Vehicle and Equipment Seminar for transit providers. 114 transit agency staff and 81 vendor personnel participated.

Intercity Passenger Rail - More than $7 million in operating assistance was provided to Amtrak for the Pere Marquette, Grand Rapids-Chicago service and the Blue Water, Port Huron-Chicago service.

Ridership has significantly increased since the shift from the International to Blue Water and the Pere Marquette ridership is continuing grow over the FY 2003 record year. In addition, The State Transportation Commission adopted an Intercity/High Speed Rail Policy in February 2004.

Rail Passenger Services – Rail Passenger Service's major accomplishment during FY2004 was the shifting of the Port Huron – Chicago Amtrak Service to a schedule which better met the needs of Michigan residents. Due to this schedule improvement, ridership on this route has surged. Prior to April 2004, the Port Huron – Chicago Amtrak service operated between Chicago and Toronto with an eastbound and westbound train traveling through Michigan mid-day. Departures from Toronto and Chicago were in the morning and their arrivals were in the evening. This schedule was not convenient for travelers in Michigan.

Also, since September 11, 2001, there has been a significant increase in complexities associated with crossing the international border between Canada and the United States. These complexities caused exceedingly long delays. These delays were adversely impacting ridership and revenue.

Amtrak and MDOT worked together with the communities along this route and developed a plan to eliminate the international connection and implement a shift in the schedule and name change from the International to the Blue Water Service. This shift called for an afternoon departure from Chicago to Michigan and a morning departure from Michigan's cities to Chicago. This shift resulted in a ridership increase of 16.7% during FY2004.

Marine

Statewide Port Study - With over 3,200 miles of great lake shoreline on four of the five great lakes, Michigan has 137 private marine terminals located in 40 commercial harbors and 17 active passenger or freight ferry services operations. The study recommended the creation of a state port authority council to stimulate economic development.

Freight Rail

On the approximately 700 miles of railroads owned by MDOT preservation of the infrastructure is a priority. Track rehabilitation work was completed on 47 miles of track and work was started on an additional 25 miles. This work is scheduled to be completed in FY 2005. Rehabilitation work was completed on 8 railroad bridges and work began on another 8 bridges. Additional, 42 bridges were inspected. Vegetation control was applied to 481miles to ensure safe railroad operations and to extend cross-tie life. MDOT conducted on-site reviews for fifty percent (approximately 2,402) of the public grade crossings in the state.

Michigan Rail Loan Assistance Program (MiRLAP) A call for projects was held and six successful applicants were approved for contracts for interest free loans to improve and preserve Michigan's rail infrastructure. This resulted in four loans for a total of $2.7 million.

Intermodal Facilities

In FY 2004, the State Transportation Commission approved over $4 million in Multi-Modal projects. Federal, state and local funding was programmed for a number of intermodal (transit/intercity bus) passenger terminals. The construction of a new intercity bus/local transit terminal in St. Ignace and the design of a new bus/rail terminal in Pontiac are examples of the types of projects funded during FY2004. In addition, the Kalamazoo intermodal terminal (intercity rail/intercity bus) is being modified to include a new local transit transfer center. MDOT also provided over $1 million in state funding for construction or renovation of other intermodal terminals statewide.

In FY 2003, MDOT began working with the Detroit/Wayne County Port Authority (DWCPA) to help the DWCPA develop a waterfront dock and passenger terminal along the Detroit River in downtown Detroit. The Port of Detroit has no passenger dock/facilities; however, in conjunction with the General Motors, City of Detroit/State of Michigan initiative to re-develop Detroit's east riverfront, DWCPA is developing this dock/terminal project to service the growing cruise ship industry on the Great Lakes and future passenger excursions. Federal highway funds totaling $6 million have been earmarked for this facility and $1.5 million of Comprehensive Transportation Fund (CTF) bond revenue has been budgeted to match the federal funds. In FY2004, MDOT completed and Environmental Assessment for the project and a Finding of No Significant Impact (FONSI) was issued.

MDOT will continue to assist DWCPA in 2005 as they contract for design of the proposed facility. During FY 2004 MDOT awarded a contract for $500,000 of state funds to the DWCPA to fund 50 percent of its operating budget. A similar contract will be awarded to DWCPA in FY2005.

Planning activities have continued for the Detroit Intermodal Freight Terminal during the past year, including extensive interaction with the railroads, automotive manufacturers, government agencies, and the public. In early 2005, MODT will complete a Draft Environmental Impact Statement and schedule public hearings.

The purpose of the DIFT project is to support the economic competitiveness of Southeast Michigan and the state by improving freight transportation opportunities and efficiencies for business, industry and the military. The goal is to ensure that Southeast Michigan has a facility or facilities with sufficient capacity to provide for existing and future intermodal demand. A Final Environmental Impact Statement is scheduled for completion in 2005.

Awards and Recognition

- MDOT received the *2003 Work Zone Safety Award for Innovations in Technology* from the American Road and Transportation Builders Association. MDOT and its partner, International Road Dynamics Inc., jointly received the award. MDOT was acknowledged as being one of the driving forces behind work zone safety systems in the U.S., and one of the first states to implement and test the *Dynamic Lane Merge System.* This system provides a solution that addresses the problem of aggressive drivers making last-minute lane merges as they approach a lane closure. By using flashing message signs instructing: "Do Not Pass," the system encourages orderly lane changes.

- The Transportation Summit Planning Team, was honored with a *Pathfinder Award* . The award was presented at the 2003-2004 American Association of State Highway and Transportation Officials (AASHTO) Team Excellence Conference. Only seven of the applicants in this nationwide competition attained the Pathfinder level of performance excellence this year. The Transportation Summit, held Dec. 3-4, 2003, was a first-time effort to bring together all transportation representatives and stakeholders to create a long-range transportation vision for Michigan. Visit the Summit Web site at: http://www.michigan.gov/transportationsummit.

- The 2004 Road Beacon Conservation Award was presented to MDOT by *The Road Beacon,* a Colorado-based, non-profit corporation established to promote motor vehicle, highway and driving safety through public education. MDOT received the award for its forward-thinking efforts to conserve and enhance Michigan lands. The director of *The Road Beacon* cited MDOT's initiatives in creating the Aesthetic Project Opportunities Inventory, and the Wetland Mitigation Banking Program as the basis for the award.

- At the 2004 Engineering & Surveying Excellence Awards Program, MDOT received three awards, including the highest award, the *Eminent Conceptor Award*. All engineering and surveying projects were judged on: the application of new or existing techniques; future value to engineering and surveying professions; social, economic, and sustainable design considerations; complexity; and exceeding owner/client needs. The three awards were for the following projects:

  - **Cadillac TSC –** The Cadillac Transportation Service Center and consultant Wade-Trim jointly accepted the *Eminent Conceptor Award for Engineering* for the $39 million US-131 value engineering redesign, which resulted in a cost savings of $2.3 million and the completion of a better freeway one year ahead of schedule.

  - **Lansing TSC –** The Lansing Transportation Service Center and consultant Rowe Incorporated jointly won the *Eminent Conceptor Award for Surveying* for survey services for reconstruction of Lansing's Capitol Loop, the one-way road system surrounding Michigan's Capitol building.

- **Crystal Falls TSC** – The Crystal Falls Transportation Service Center and consultant URS Corporation jointly earned the *Honorable Conceptor Award for Engineering* for the rehabilitation of the historic M-69 Bridge over the Paint River.